Common Market for Eastern and Southern Africa
Comprehensive African Agriculture Development Programme

Improving Trade in Livestock Commodities by COMESA: The Challenge of Animal Traceability

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High value markets for livestock commodities require that the commodity should be traceable back to the farm of origin. This translates into a system for the identification at farm level of animals from which commodities are derived. Various animal identification systems have been in place for centuries, mainly with the purpose of indicating ownership. For purposes of international trade, identification must be permanent, unable to be tampered with, unique, and linked to a registration system that permits traceability. Highly sophisticated systems exist, but these come at a high cost. How can COMESA meet the challenge?

Why must animals be traceable?

The reasoning behind the requirement for traceability reaching back to the farm where the animals from which a food product was derived were raised is simple: if the commodity causes or may have caused any unwanted situation, it will be possible to rapidly trace it backwards on its journey from the farm to the retailer to pinpoint the source of the problem and intervene to eliminate it. It also enables any resulting prohibition on trade in the commodity to be limited to a narrower field, thus limiting the damage done. For example, if hamburger patties are found to have contained a serious human pathogen and the source of contamination can be traced, only patties emanating from that source need to be withdrawn from sale. Animal identification has many other advantages that include demonstration of ownership and the ability to maintain better records pertaining to health, production and reproduction.

What are the minimum requirements for animal identification and traceability?

The minimum requirements for identification of animals are determined by the purpose, animal species and of course the cost. The BSE (mad cow disease) scare prompted the EU to insist upon individual identification for cattle to ensure precise traceability of beef. At the other end of the scale, identification to show ownership is usually at herd level; some countries have developed a national brand to stop cross-border theft. In developed countries, the trend is towards individual identification of larger species (cattle, sheep, goats, pigs) but this is not applied to poultry or fish. If the issue is traceability, the identification must be linked to some form of register, preferably electronic, that will enable the movement of the animal to be tracked rapidly all the way to the abattoir. As the

commodities derived from that animal must also be traceable to source, the identification usually incorporates a bar code that can then be used to identify the product.

What are the recommended identification systems?

Hot iron branding and ear notches are old traditional methods of identification that have served their purpose over a long time. Unfortunately, because they can be altered and because if not well done brands may be difficult to read, these methods are not acceptable for international trade. Acceptable methods of individually identifying cattle range from simple numbered ear tags to bar-coded ear tags to various types of identification and tracking devices that make use of imaging and radio frequency technology. These may be incorporated into ear tags, inserted under the skin or placed in ruminal boluses. They are expensive and in countries with limited resources and limited export questions might be raised about whether applying them widely would be justified.

What is the way forward for COMESA?

We have to accept that for trade in livestock commodities, requirements for identification and traceability are not going to go away, and in fact are likely to get more exigent as time goes by. On the other hand, before investing heavily in a system, most producers or governments would like to be sure that the profit will be worth it. Not only are the devices expensive, but maintaining the necessary traceability capacity is resource intensive. The best approach may be to decide on a minimum requirement for trade among member states that is largely based on a simple form of herd level identification, since extensively kept herds on pasture can be considered as a unit in terms of their health status. Where individual identification is desirable, for example in dairy cattle, simple numbered ear tags may be used. A 'traceability and identification' fund can be established in which some of the profit from livestock commodity trade within COMESA can be accumulated in order to upgrade the system as more profitable but also more demanding markets become available. At the same time, for particular circumstances such as cattle of pastoralists who want to participate but may not favour embellishment of their cattle with ear tags, some innovation may be necessary. Since the cattle are named by their owners, a system of identification using names, digital photographs and banking of a hair sample for genetic analysis if required could be considered. Another possible approach would be to identify only animals associated with dedicated production chains, e.g. those participating in the COMESA Green Pass system. This would reduce the complexity as well as the cost to livestock owners not participating in the marketing chain.

Should we consider identifying animals other than cattle?

This will depend on the extent to which they are traded, and the requirements of the markets in which they are traded. Relatively simple systems like simple numbered ear tags can be used for sheep and goats, although these do sometimes get lost as a result of contact with the thorny plants that prevail in Africa. Because pigs tend to fight and ear tag losses are common, an ear tattoo is the usual recommendation for identifying pigs. At present some form of batch identification is considered sufficient for poultry, fish and other aquatic animals, even by the EU.

Further reading

Terrestrial Animal Health Code, OIE: Chapter 4.1 General principles on identification and traceability of live animals (www.oie.int).

Landais, E. 2001. The marking of livestock in traditional pastoral societies. *Revue scientifique et technique, Office International des Épizooties*, 20: 463-479.

McKean, J.D. 2001. The importance of traceability for public health and consumer protection. *Revue scientifique et technique, Office International des Épizooties*, 20: 363-371.

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Further information

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